



# International Participation in NASA Programs

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***NASA's SMEX Pre Proposal Conference  
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# International Participation in NASA Programs



**In principle, NASA welcomes it...**  
***however, don't plan on using NASA***  
***money to purchase a foreign launch or to***  
***pay for foreign research***



# International Participation in NASA Programs

- . . . And, if you are considering involving one of the following in a proposal to NASA, forget it:
  - IRAN 
  - IRAQ 
  - CUBA 
  - NORTH KOREA 
  - LIBYA 
  - and a few others on the ITAR 126.1 List . . .
- . . . And if you are thinking of involving organizations or individuals on the **Entities List**,  
**Specially Designated Nationals List**,  
**Debarred Parties List**, or  
**Denied Persons List**, . . . *we won't like it*

# International Participation in NASA Programs

## ■ ***U.S. Non-Proliferation and Export Control Policy***

- *The United States will continue to oppose missile programs of proliferation concern, and **will exercise particular restraint in missile-related cooperation.** We will continue to retain a strong presumption of denial against exports to any country of complete space launch vehicles or major components.*

***The United States will not support the development or acquisition of space-launch vehicles in countries outside the MTCR.***

*For MTCR member countries, we will not encourage new space launch vehicle programs, which raise questions on both nonproliferation and economic viability grounds. The United States will, however, consider exports of MTCR-controlled items to MTCR member countries for peaceful space launch programs on a case-by-case basis . . .*



# International Participation in NASA Programs

## P.L. 106-178 – Iran Non-Proliferation Act



### ■ SEC. 6. RESTRICTION ON EXTRAORDINARY PAYMENTS IN CONNECTION WITH THE INTERNATIONAL SPACE STATION

- *No agency of the U.S. Government may make extraordinary payments in connection with the **International Space Station** to the Russian Aviation and Space Agency, any organization or entity under the jurisdiction or control of the Russian Aviation and Space Agency, or any other organization, entity, or element of the Government of the Russian Federation, unless the President has made and reported to the Congress a determination that the Government of the Russian Federation is preventing transfer to Iran of items that would make a material contribution to WMD or missiles.*

*And . . .*

# International Participation in NASA Programs



- **...if you are contemplating any *China (PRC)* involvement . . .**
  - *Section 126(b) of P.L. 106-391 (NASA Authorization Act of 2000) requires the NASA Administrator to **certify to the Congress at least 15 days in advance of any cooperative agreement with the PRC**, or any company owned by the PRC or incorporated under the laws of the PRC, involving spacecraft, spacecraft systems, launch systems, or scientific or technical information that –*
    - *(A) the agreement is not detrimental to the U.S. space launch industry; and*
    - *(B) the agreement, including any indirect technical benefit that could be derived from the agreement, **will not improve the missile or space launch capabilities of the PRC.***

# International Participation in NASA Programs



- **On top of all that, did you know...**

- *Congress passed a law that requires NASA to notify the public about certain international cooperative activities at least 45 days prior to finalizing the arrangement?\**

- *They did, and while it probably won't, it could affect the implementation of a program in which you have submitted a proposal*

\* Section 126(a) of Public Law 106-391 (NASA Authorization Act of 2000), notification for space missions in which a foreign entity supplies the spacecraft, spacecraft system, or launch system



# International Participation in NASA Programs

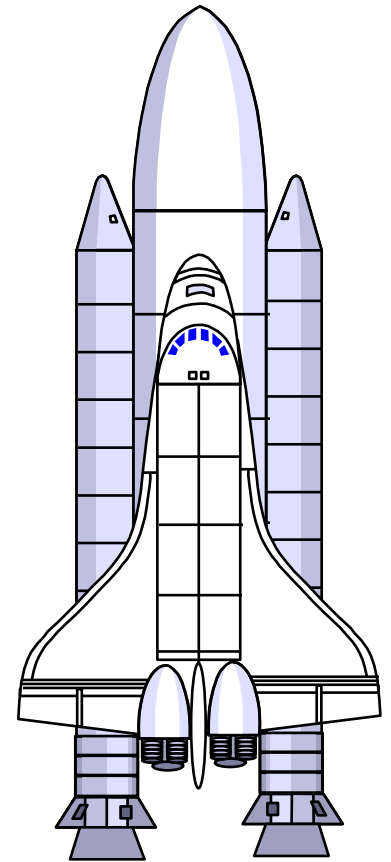
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- In case you may have forgotten, *in principle, NASA welcomes international participation in our programs . . . really!*



# Main Reasons Certain Exports are “Controlled” by U.S. Law

- National Security (NS)
- Foreign Policy (FP)
- Proliferation (MT, NP, CB)





# NPD 2190.1: The NASA Export Control Program

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**NPD 2190.1(1)(a):** *"It is NASA policy to ensure that exports and transfers of commodities, technical data, or software to foreign persons are carried out in accordance with United States export control laws and regulations, and Administration and NASA policy. Relevant export control laws and regulations include the Export Administration Regulations (EAR), . . . and the International Traffic in Arms Regulations (ITAR) . . . ."*



# NASA & Export Control

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**The export control laws apply to NASA and NASA contractor activities:**

- **An Export is:** *The transfer of anything to a "FOREIGN PERSON" or a foreign destination by any means, anywhere, anytime, or a transfer to a "U.S. PERSON" with knowledge that the item will be further transferred to a "FOREIGN PERSON".*
- **Export controls exist on "exports" of assistance and training, as well as classic "exports" of technical data (including software) and hardware under both the International Traffic in Arms Regulations (ITAR) and on technology (including software) and hardware under the Export Administration Regulations (EAR).**

**Not all "exports" are subject to control.**



# Export Control Violations are Federal Crimes

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- **Protect Yourself: The Export Laws and Regulations Have Teeth and Can “Bite”**
  - **ITAR Criminal and Civil Penalties**
    - Fine of up to \$1 million per violation
    - Imprisonment - 10 years per violation
  - **EAR Criminal and Civil Penalties**
    - Fine of \$100K+
    - Imprisonment for up to 10 years
- **That’s one reason why You need to be concerned about Your export practices**



# What is NOT subject to Export Control?

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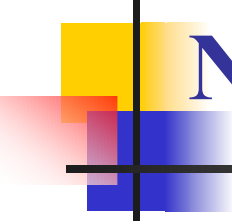
- Technical Data/Technology does not include information concerning general scientific, mathematical or engineering principles commonly taught in schools, colleges and universities or information in the “public domain”.
- It also does not include basic marketing information on function or purpose or general system descriptions of “Defense Articles” or controlled hardware.



# So what's in the Public Domain?

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- Public Domain - information which is published and which is generally accessible or available to the public:
  - through sales at newsstands and bookstores;
  - through subscriptions which are available without restriction to any individual who desires to obtain or purchase the published information;
  - through second class mailing privileges granted by the U.S. government;
  - **at libraries open to the public or from which the public can obtain documents;**
  - through patents available at any patent office
  - through unlimited distribution at a conference, meeting, seminar, trade show or exhibition,, generally accessible to the public, in the United States;
  - **through public release (i.e., unlimited distribution) in any form (e.g., not necessarily in published form) after approval by the cognizant U.S. government department or agency;**
  - through **fundamental research** in science and engineering at accredited institutions of higher learning in the U.S. where the resulting information is ordinarily published and shared broadly in the scientific community.



# NASA Determines if Information on NASA Systems is “Technical Data”

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- NASA has the authority to decide if information on NASA systems is subject to export restrictions or is appropriate for release into the public domain
- Releases into the public domain are available to anyone
- The NASA process for deciding is contained in our Scientific and Technical Information (STI) Program - NPG 2200.2



# **The International Traffic in Arms Regulations (ITAR)\***

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**22 CFR 120-130**

**\*Updated via Federal Register Notices**

**<http://www.pmdtc.org/>**





# The International Traffic in Arms Regulations (ITAR)

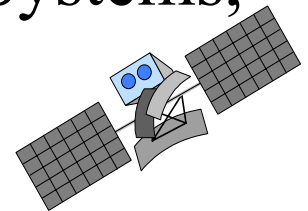
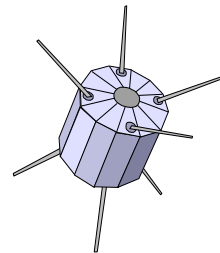
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- ***Controls export of predominantly military “Technical data”, “Defense articles”, & “Defense services”***
  - ***Technical Data*** includes “information which is required for the design, development, production, manufacture, assembly, operation, repair, testing, maintenance or modification of ***defense articles***. This includes information in the form of blueprints, drawings, photographs, plans, instructions and documentation”
  - ***Defense services*** include furnishing of assistance (including training) to foreign persons, whether in the United States or abroad in the design, development, engineering, manufacture, production, assembly, testing, repair, maintenance, modification, operation, demilitarization, destruction, processing or use of defense articles;
  - ***Defense articles*** are predominantly military items listed on the ITAR’s U.S. Munitions List (USML) and certain items on the Missile Technology Control Regime (MTCR) Annex.
  - ***USML items*** are mainly “military” in nature, with a limited number of “dual-use” items.

# USML Example

## Category XV: “Spacecraft and Associated Equipment”

- All spacecraft (except the International Space Station)
- Certain GPS Receivers
- Certain Radiation-Hardened Microprocessors
- Uniquely Designed, Modified, Configured Systems, Pieces and Parts for Above
- Technical Data for Above





# ITAR LICENSE EXEMPTIONS

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- 123.4(a) & (b) – Temporary imports
- 123.16(b) – Exports of parts, components, models
- 125.4(b)(1) – Tech. data exports directed by DoD
- 125.4(b)(3) – Tech. data exports directed by USG agency
- 125.4(b)(5) – Tech. data exports for lawfully exported articles
- 125.4(b)(7) – Tech. data returned to sender
- 125.4(b)(10) – Tech. data disclosed to university employees
- 125.4(b)(11) – Tech. data authorized by DTC written exemption
- 125.4(b)(13) – Publicly available data about defense articles
- 125.5(c) – Plant visits
- 126.4(a) – Exports by or for USG agency
- 126.4(c) – Imports/Exports for use by USG agency abroad
- 126.5 – Canadian Exemptions



# The International Traffic in Arms Regulations (ITAR)

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- **License Exemptions**

- The **ITAR** contains numerous **exemptions\*** to licensing requirements, but not to the fact that an item is subject to control

- \*Use of **exemptions** is pursuant to the specific provisions of the **ITAR**, the **NASA ECP** and the **NASA/Foreign Partner International Agreement**



# 123.16(b)(10) ITAR University Exemption

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## Defense Article (Hardware) Exports

- Authorizes accredited U.S. institutions of higher learning to effect permanent & temporary exports of defense articles (hardware) fabricated for experimental or scientific purposes, *if*:
  - Export is to an accredited institution of higher learning, governmental research center, or government-funded research center in a NATO, Major non-NATO Ally, ESA or EU country, and *exclusively* involves nationals of those countries;
  - All the information about the item, including its design, and all of the resulting information obtained through fundamental research involving the article, will be in the public domain; *and*
  - If for permanent export, any foreign platform or system in which the article may be incorporated will be exclusively concerned with fundamental research and will only be launched into space from the countries identified above and by nationals of those countries



# 125.4(d) ITAR University Exemption

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## ■ Defense Services

- Authorizes accredited U.S. institutions of higher learning to perform defense services (*excluding technical data*) if the defense service is:
  - With a NATO, Major non-NATO Ally, ESA, or EU member country or to nationals of those countries, or to nationals of those countries in the U.S. when engaged in fundamental research at an accredited U.S. institution of higher learning;
  - In direct support of fundamental research being conducted at a qualified institution of higher learning, a governmental research center, or a government-funded research center within the countries identified above; and
  - Limited to discussions on assembly of any defense article described in 22 CFR § 123.16(b)(10) and/or integrating any such article into a scientific, research, or experimental satellite



# ITAR University Exemption - What's not covered? A lot . . .

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- **Hardware or Defense Services with countries or nationals from countries that are not members of NATO, Major non-NATO Allies, ESA, or the EU – e.g., Russia, Mexico, Brazil, etc.**
- **Transfers or access to technical data (including software) otherwise controlled by the ITAR; 100% of the information (technical data) on the defense article must be in the public domain**
- **Items listed in the MTCR Annex or classified on the USML as SME**
- **Any defense service or information involving launch activities including the integration of a satellite or spacecraft to the launch vehicle**
  - Must apply for TAAs, DSP-5s, or DSP-73s for exports to countries or nationals that are not covered, or where conditions not satisfied
  - In using the exemptions, *all* persons must be screened to assure they are covered (type and nationality) and all other conditions met
  - Implied requirement to advise foreign persons of restrictions (re-transfers to 3<sup>rd</sup> countries, involvement of nationals of 3<sup>rd</sup> countries); No stated DSP-83 requirement or other non-disclosure agreement
  - Use does *not* depend on an arrangement with the U.S. Government
  - No unique recordkeeping requirements beyond those already required by the ITAR for use of exemptions



# The ITAR in Civil Space

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## ■ **ITAR Defense Service Exemptions**

- Except for the new University exemption, a DOD bid proposal exemption, and the Canadian exemption, don't bother looking for “defense service” exemptions
- And be mindful that a Technical Assistance Agreement is required even if assistance on a defense article involves 100% public domain information





# **The Export Administration Regulations\* (EAR)**

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**15 CFR 730-774**

**\*Updated via Federal Register Notices**

**<http://bis.fedworld.gov>**



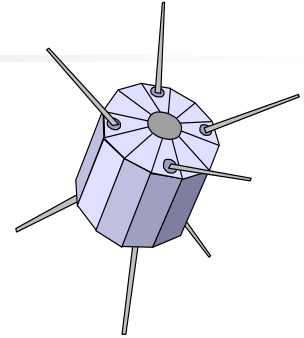
# The Export Administration Regulations (EAR)

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- *Controls export of dual-use “Technology” and “Commodities”*
  - *Technology* includes “information necessary for development, production, or use of a product” listed on the Commerce Control List (CCL). The information takes the form of "technical data" or "technical assistance“;
  - *Commodities* are dual-use (both civil and military applications) items listed on the EAR’s Commerce Control List (CCL).

# CCL Example

- ECCN 9A004: “Spacecraft”
  - The International Space Station\*
    - \*Technical Data at the Detailed Design, Development, Manufacturing and Production Level remain subject to the jurisdiction of the Department of State/ITAR
  - Various Other Pieces and Parts that have been transferred from the USML





# **EAR LICENSE EXCEPTIONS**

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- **NLR**
- **GOV (15 CFR § 740.11)**
- **GBS (15 CFR § 740.4)**
- **RPL (15 CFR § 740.10)**
- **LVS (15 CFR § 740.3)**
- **CIV (15 CFR § 740.5)**
- **CTP (15 CFR § 740.7)**
- **TSU (15 CFR § 740.13)**
- **TSR (15 CFR § 740.6)**
- **TMP (15 CFR § 740.9)**



# NASA Contractors and Export Control

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- NFS Clause 1852.225-70 “Export Licenses” – required in all domestic contracts
- Contractors have responsibility to obtain any required licenses unless otherwise agreed with NASA
- NASA Procedures & Guidelines (NPG) 2190 requires export plans and reporting for exports effected in support of NASA programs



## Bottom Line

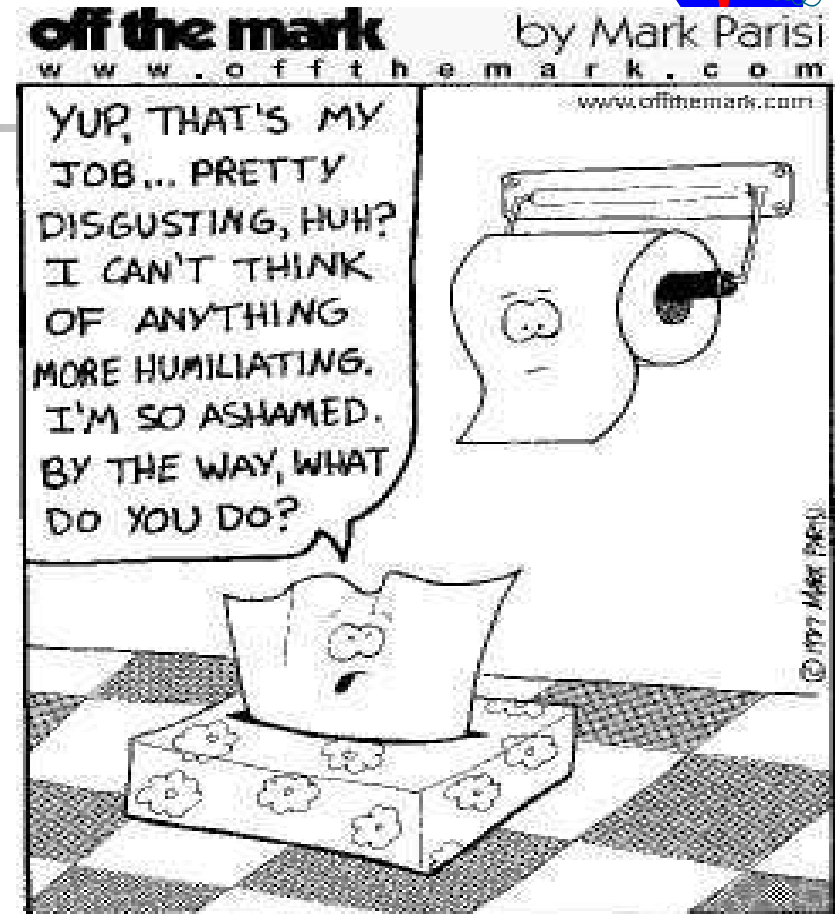
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- Everyone working with NASA -- including NASA employees and contractors -- has a responsibility to observe U.S. export laws and regulations, to comply with NASA's Export Control Program, and to be a “responsible” exporter

# For More Information . . .



- ✓ US Dept of State, Office of Defense Trade Controls (202) 663-2700  
<http://www.pmdtc.org/>
- ✓ ITAR, 22 CFR 120-130 <http://www.pmdtc.org/>
- ✓ U.S. Dept of Commerce, Bureau of Industry and Security <http://207.96.11.93/Default.htm>
- ✓ EAR, 15 CFR 730-774 <http://bis.fedworld.gov>
- ✓ NASA Export Control Program  
<http://www.hq.nasa.gov/office/codei/nasaecp/>



*A NASA Export Control Officer  
hears a Program Officer's lament*